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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,911	03/26/2004	Mehdi Kazemi-Nia	1020.P18339	6318
57035	7590	09/20/2007	EXAMINER LE, THI Q	
KACVINSKY LLC C/O INTELLEVATE P.O. BOX 52050 MINNEAPOLIS, MN 55402			ART UNIT 2613	PAPER NUMBER
		MAIL DATE 09/20/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/814,911	KAZEMI-NIA ET AL.	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 July 2007.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-15 is/are allowed.
- 6) Claim(s) 16-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 05 July 2007 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

This Action is in response to Applicant's amendment filed on 7/05/2007. **Claims 1-20** still pending in the present application. **This Action is made FINAL**

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) filed on 3/26/2004 was considered by the examiner.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 16-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bostak et al.** (US Patent # 6,707,589) in view of **Nguyen et al.** (US PGPub 2004/0189388) and further in view of **Marquis** (US PGPub 2005/0103769).

Consider **claim 16**, Bostak et al. clearly disclose, a method, comprising: supplying input signals to first modulator driver circuit (read as, supplying input signals  $V_{in}$  and  $V_{in}^*$  to drive circuit 10; figure 1); said circuits including a constant current source (read as, DC current source  $I_D$ ; figure 1); connecting a first output from said first modulator driver circuit to said optical modulator (read as, the output terminal which is connected to resistor 14 and EAM 12; figure 1); connecting a second output from said first modulator driver circuit to a termination resistance (read as, output terminal which is connected to resistor 16; figure 1) (figure 1, column 1 lines 35-60). Bostak et al. fail to disclose, a second driver circuit including a constant current source and shutting off said current source included in said second modulator driver circuit; and disabling said constant current source associated with said second driver circuit using said termination resistor.

In related art, Nguyen et al. disclose a series of differential amplifier connected in parallel to each other. Wherein, the differential amplifiers have identical circuit structure as the driver circuit disclosed in Applicant's specification figures 2-3. Further, Nguyen et al. show, a second driver circuit having a constant current source (read as, each differential amplifier 3603 has a

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separate current source 3605 (i.e. first, second, third... etc. driver circuits have a separate current source connected to it), and wherein each amplifier 3603 receives input signal from the gate of the transistor pair) (figure 36, paragraph 0475-0476).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to incorporate the teachings of Nguyen et al. with Bostak et al. Since add additional drive circuits parallel to each other, provides the ability to change the output signal level. Thus increasing the operating range of the drive circuit.

Further, It would have been obvious for a person of ordinary skill in the art at the time of the invention to understand, since each amplifier circuit 3603, as shown by Nguyen et al. figure 36, can be disable or enable based on the on/off state of the current source 3605. Then based on the desired output signal level, each individual amplifier circuit 3603 can be enabled or disabled; thus, if the a certain output signal level is desired the second amplifier circuit 3603 (i.e. second driver circuit) can be disable to attain the desired output signal level (Nguyen et al., figure 36). Although, Bostak modified by Nguyen teaches the disabling of a current source, it fails to disclose disabling the current source using a termination resistor.

In related art, Marquis teaches an apparatus for regulating the heat dissipated by the golf hand grip. Wherein, the apparatus includes an electrical switch 100 comprising a variable resistance potentiometer, which regulate the current passing through the heating member 14 (figure 8, paragraph 0079).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to incorporate the teaching of Marquis, for using a variable resistance potentiometer to regulate current flow, with the teachings from Bostak modified by Nguyen, for turning on and

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off individual amplifier by enabling/disabling the tail current generator, as disclosed by Nguyen. Since, the current regulating method taught by Marquis has an equivalent function as the method for enabling/disabling tail current generator, taught by Nguyen.

Consider **claim 17**, and as applied to **claim 16 above**, Bostak et al. as modified by Nguyen et al. and Marquis further disclose, wherein said first and second driver circuits are mirror images of each other (read as, all amplifier circuit 3603 are identical to each other; Nguyen et al., figure 36).

Consider **claim 18**, and as applied to **claim 16 above**, Bostak et al. as modified by Nguyen et al. and Marquis further disclose, connecting a first output (read as, outputs 3506; Nguyen et al., figure 36) of said second modulator driver circuit to said termination resistance; and connecting a second output (read as, outputs 3506; Nguyen et al., figure 36) of said second modulator driver circuit to said optical modulator (note, Nguyen et al. shows that the first outputs from all amplifier circuits 3603 are connected together, and the second outputs are also connected together. Thus, when teaching of Nguyen et al. is applied with the teaching of Bostak et al., there would be a plurality of drive circuits 10; wherein the first outputs (i.e. the output from drain of right transistor of transistor pair 11) of all drive circuits are connected to resistor 14 and EAM 12 and second outputs (i.e. the output from drain of left transistor of transistor pair 11) of all drive circuits are connected to resistor 16).

Consider **claim 19**, and as applied to **claim 16 above**, Bostak et al. as modified by Nguyen et al. and Marquis further disclose, supplying power to said first modulator driver circuit such that a constant current source included in said first modulator driver circuit operates to provide a signal to said optical modulator and said termination resistance (Bostak et al. figure 1,

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column 1 lines 35-60); but fail to disclose, shutting off power supplied to said second modulator driver circuit.

It would have been obvious for a person of ordinary skill in the art at the time of the invention to understand, since each amplifier circuit 3603, as shown by Nguyen et al. figure 36, can be disable or enable based on the on/off state of the current source 3605. Then based on the desired output signal level, each individual amplifier circuit 3603 can be enabled or disabled; thus, if the a certain output signal level is desired the second amplifier circuit 3603 (i.e. second driver circuit) can be disable to attain the desired output signal level (Nguyen et al., figure 36).

Consider **claim 20**, and as applied to **claim 19 above**, claim 20 is rejected for the same reason as claim 18 above.

*Allowable Subject Matter*

6. **Claims 1-15** are allowed.

*Response to Arguments*

7. Applicant's arguments with respect to claims 16 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Thi Le whose telephone number is (571) 270-1104. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Thi Le*



KENNETH VANDERPUYE  
SUPERVISORY PATENT EXAMINER